

Office of Educator Effectiveness

# Student Learning Objective (SLO) Example

## Grade 5 Math Intervention

<b>Teacher Name:</b> EXAMPLE	<b>Teacher School:</b> EXAMPLE
<b>SLO Evaluator Name:</b> EXAMPLE <b>SLO Evaluator Position/Role:</b> EXAMPLE	
<b>Grade Level:</b> 5 <sup>th</sup> Grade	<b>SLO Content Area:</b> Math Intervention
<b>SLO Type:</b> Choose One  <input checked="" type="checkbox"/> Individual <i>(written by an individual teacher)</i>  <input type="checkbox"/> Team <i>(team of teachers focus on a similar goal but are held accountable for only their students)</i>	<b>SLO Approach:</b> Choose One  <input checked="" type="checkbox"/> Class <i>(covers all of the students in one class period i.e., 2nd period Biology, 4th period Beginning Pottery, etc.)</i>  <input type="checkbox"/> Course <i>(covers all of the students enrolled in multiple sections of the course (i.e., all of a teacher's Biology 2 students, all of a teacher's Beginning Pottery students, etc.)</i>
<b>SLO Interval of Instruction</b> Choose One  <input checked="" type="checkbox"/> Year <input type="checkbox"/> Semester <input type="checkbox"/> Other  If <i>Other</i> , provide rationale (i.e. quarter long course) and indicate days of instruction.  Rationale: <a href="#">Click here to enter text.</a> Days of Instruction: 8/21/14-5/21/15	<b>Assessment Dates</b>  Pre Assessment Date: 8/19/14  Post Assessment Date: 5/20/15

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### I. Student Population

Provide a detailed description of the student population. Information should include, but is not limited to, the following: the number of students in the class, a description of students with exceptionalities (e.g., learning disability, gifted and talented, English language learner [ELL] status, etc.), and a description of academic supports provided to students (e.g., extended time, resource time with EC teacher, any classroom supports that students receive to help them access the core curriculum).

The students in the intervention program were selected based off scores from the state math test, a national math test, and district benchmarks. Students who scored *not met* on the state test, who were *below basic* or *basic* on the national math assessment, and/or did not pass last year's math end of course math benchmark were considered for the 5<sup>th</sup> grade intervention program. There are 20 total students (two classes of 10). Five students receive 504 accommodations and three students have IEPs for reading and writing.

### II. Historical and Trend Data

Describe the applicable past data for the students. In your description included the students' level of knowledge prior to instruction, including the source(s) of data (e.g., formative and summative assessments, anecdotal data gathered from collaboration with other educators) and reflect on the relevance to the overall course objectives.

This is the introductory year for students using this curriculum, so there is no previous baseline data specific to this curriculum from which to draw. (We do know from previous test scores that these students are at risk in math. Also, by taking a closer look at the content strands on previous state, national, and district tests, we have identified the specific areas of focus.)

Below is the test data of the selected students.

State Test		National Test		District Test
2013	2014	Fall 2014	Spring 2014	
12 students scored <i>not met</i> 8 students scored <i>met</i>	10 students scored <i>not met</i>  10 students scored <i>met</i>	15 students scored <i>below basic</i>  5 students scored <i>basic</i>	17 students scored <i>below basic</i>  3 students scored <i>basic</i>	7 students scored between 40% and 45%  8 students scored between 50% and 55%  5 students scored between 60% and 65%

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### III. Baseline Data

Describe which pre-assessment(s) will be used to measure student learning and why the assessment is appropriate for measuring the objective(s). Provide baseline assessment results for the student population. Attach the assessment and grading scale and/or rubric used to score the assessment(s).

Because there is no pre or post test for the entire module, but unit pre and post tests, I created a module pretest and received the following scores during the first week of class. Questions on the pretest were taken from each of the unit pre assessments in the module.

Student	Module PreTest	Student	Module PreTest
1	57%	11	70%
2	45%	12	60%
3	55%	13	63%
4	60%	14	65%
5	55%	15	72%
6	57%	16	60%
7	55%	17	55%
8	45%	18	58%
9	35%	19	55%
10	65%	20	70%

### IV. Post Assessment

Indicate what assessment will be used as a post assessment and how it is aligned to the baseline assessment.

The curriculum consists of unit assessments that measure student growth of the unit's objectives. I have created a pre and post test for the entire multiplication module that is comprised of questions from each unit assessment. The module assessment will be administered during the first week of class and the post assessment will be administered upon completion of the multiplication module. The assessment includes a performance task that requires students to demonstrate, using pictures, their ability to find the product of two multi-digit whole numbers. The students' pictures will be collected and scored using the scoring rubric that accompanies the assessment. There are computation questions that require students to demonstrate fluency in multiplying numbers. The assessment also includes a problem solving component that requires students to apply problem solving strategies to find the product. The test will be scored out of 100 points. These assessments will not be tied to the students' math report card grades. For two students that have IEPs that require extended time, those students will be given extended time to complete their assessments.

### V. Progress Monitoring

How frequently will you progress monitor students' mastery of content? Indicate what ongoing sources of evidence you will collect in order to monitor student progress. (Other evidence of student growth can include student work samples, portfolios, etc.)

I will progress monitor students via the curriculum's weekly formative assessment and pre and post summative assessments provided in each unit and compare what students are able to do to this skills progression to determine if and how they are growing:

HS2								
A	B	C	D	E	F	G	H	I
Student	interprets products of single-digit whole numbers using equal groups of objects, arrays of objects and comparison	interprets products of whole numbers within 100, representing context using pictures, numbers, and words	determines an unknown whole number, in any position, in a multiplication equation	multiplies within 100 to solve multi-step word problems involving equal groups, arrays, and measurement quantities	multiplies a whole number (up to three digits) by a single-digit whole number, using strategies based on place value and the properties of operations	multiplies a whole number (up to four digits) by a single-digit whole number, using strategies based on place value and the properties of operations	multiplies a whole number (up to four digits) by a single-digit whole number and multiplies two double-digit numbers, in context, using strategies based on place value and the properties of operations, illustrates and explains the calculation by using equations, rectangular arrays, and/or area models	multiplies three-digit by two-digit whole numbers, using a standard algorithm

The weekly formative assessments are short, 5-7 question tests designed to gauge student understanding. Because of the brevity of these assessments, ample time is available for remediation. Students who score below 80% on the weekly assessments, will receive additional instruction with the teacher. The remaining students will work on a computerized enrichment activity on the current or a previous standard during the weekly remediation time.

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Post assessments are administered at the end of each unit. Students who score below 80% on the post assessments will receive extra individual instruction to ensure understanding of the concept. Students scoring above 80% will work in partners on the curriculum designed extension activities to further enhance conceptual understanding. I will group students based on the concepts that were missed on the formative assessment and use both curriculum remediation tools, and other researched based tools to assist in students' concept mastery.

### VI. Learning Goal (Objective)

Provide a description of what students will be able to do at the end of the SLO Interval. The Learning Goal (objective) is based on and aligned with course- or grade-level content standards and curriculum. The goal should be broad enough to capture major content, but focused enough to be measureable.

All students will improve in their ability to multiply multi-digit whole numbers in straight computational and real world situations.

### VII. Standard (s)

Identify the content standard(s) and indicators that align to the SLO learning goal (objective).

The content standards are taken directly from the math intervention curriculum, and are designed to give students a strong conceptual understanding of multiplication so they can apply their learning in their core math classes. Students receive 35 minutes of daily instruction from August – May of the school year.

The SC Mathematics content standards for the skills that are addressed in the SLO are :

1. Fluently multiply multi-digit whole numbers using the standard algorithm.

### VIII. Growth Targets

A. Choose One

- ☒ Tiered
- ☐ Individual
- ☐ Targeted (*Sub population(s) of students are the focus of the SLO goal. Appropriate for course approach as a second SLO when the first includes all students.*)

B. Considering all available data, identify the targets the students are expected to reach by the end of the SLO interval. List the growth target information below or on an attached spreadsheet.

These targets will require all students to significantly improve their performance over the year. Students scoring in the low range will be expected to score in the mid range on the post-assessment, and some students scoring in the mid range will be expected to move into the high range.

Students	Baseline Score	Growth Targets
1 student	4 points	6 points
6 students	6 – 8 points	5 points
11 students	9 – 11 points	4 points
3 students	12 – 14 points	3 points
0 students	15+ points	N/A

C. Provide a rationale for the growth targets. Rationale may reflect typical vs. pretest performance, may include reasoning for using individualized targets for some but not all students, or any other influencing information used to determine anticipated growth.

In order for students to successfully matriculate through fifth grade math and beyond, they need a strong understanding of and ability to apply math concepts. Therefore, the district chose a research based intervention curriculum to ensure students obtain the prerequisite mathematical knowledge for advanced concepts. Multiplication is the focus of this SLO because the

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students in this math intervention group frequently scored poorly on math problems that involve multiplication.

### IX. Instructional Strategies

A. Describe the best instructional practices you will use to teach this content to students. Include how instruction will be differentiated based on data. What interventions will be used if more assistance is needed during the learning progress?

The students will receive small group instruction in the math curriculum where students will receive:

- whole group lesson (class size  $\leq$  10 students);
- time to work individually, with the teacher, with partners, and in triads;
- opportunities to use math manipulatives to create arrays and games/activities to strengthen and reinforcement content development and understanding;
- weekly formative assessments to assess student understanding; and
- pre and post unit tests

There is time built in throughout the year for students to receive additional assistance with the school math interventionist if needed (additional time will be based on assessment results). I will collaborate with the core math teachers, school administration, and school/district curriculum specialists to develop a plan if strategies/assistance other than those offered in the course are needed.

My professional learning will focus on the identifying the skills that students have mastered and the skills that are still areas of growth. I will begin by reading *Data Driven Instruction* by Paul Bambrick-Sanyoto. In his book, he discusses the principles of mastery teaching using data to drill down and determine what students know and are able to do. Through the use of data trackers, a system for analyzing student data, and action planning for instruction, teachers see increased academic growth in students. I will apply these strategies in an effort to improve my students' performance in mathematics.

I will also collaborate with 5<sup>th</sup> grade core math teachers to share strategies that may work with other students in their class who may not qualify for math intervention, but who struggle and may benefit from strategies provided in this curriculum.